

PATENT SPECIFICATION

DRAWINGS ATTACHED

831,732

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COMPLETE SPECIFICATION

Stuffing Material, Upholstery Produced from such Material and method for its Manufacture

I, JENS GEORG MARTINUS NIELSEN, a subject of the King of Denmark, of Frederiksborggade 3, Copenhagen, Denmark, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to a stuffing material and has for its object to provide such a material distinguished by great softness and durability combined with great lightness, so that for many purposes it is more suitable than foam rubber.

The present stuffing material possesses these good qualities as, according to the invention, it consists of a slab of foam plastic, more particularly of nylon, having slits cut therein so that when distended across the slits the material, besides the microscopic pores formed by the foaming, has holes formed therein.

Such a slab having slits cut therein, when distended so that its area is increased and the weight per unit of area correspondingly decreased, provides a stuffing which may be used in multifarious ways, in very thin layers for padding as well as for underlays for carpets and for upholstery. The stuffing material may suitably be used for the upholstery of chairs, settees and the like and for the production of mattresses by forming the stuffing of several superimposed and intercrossing upholstery slabs, whereby a stuffing is obtained consisting of many superimposed cells which combine great lightness with great elasticity and softness. The lightness of the stuffing is of importance in vehicles, particularly in aircraft, in which permanent installations are required as light as possible, and in which stuffing made of foam rubber, which is otherwise excellently suited for the purpose, is far heavier than desirable.

[Price 3s. 6d.]

The stuffing material of the invention may be produced by cutting in a slab of foam plastic rows of slits offset in relation to each other.

The invention is illustrated by way of example in the accompanying drawings, in which:—

Figure 1 shows diagrammatically part of a stuffing according to the invention;

Figure 2 shows on a reduced scale part of a stuffing consisting of several layers, in side elevation, and

Figure 3 shows part of a slab for the production of the stuffing material.

The stuffing material is produced from a slab 1 (Figure 3) consisting of foam plastic, more particularly a solid foam made of nylon, into which rows 2 of slits offset in relation to each other are cut, for instance by means of a drum with knives mounted thereon past which the slab 1 is taken. The slits thus formed may then be distended to form holes by stretching the plate in the transverse direction of the rows of slits. A slab distended in this manner will thus appear in the form shown in Figure 1 with ribs 3 enclosing holes 4.

The stuffing material may be used for many different purposes, but may be applied particularly to the production of upholstery by distending several such slabs one on top of the other in such a way that the rows of holes of alternate layers cross as indicated in Figure 1. In this way a stuffing is obtained containing many hollow spaces enclosed by super-imposed ribs, which due to the special manner in which the distended slits are supported in relation to one another in the upholstery thus formed, will be highly resilient, without the bearing ribs being exposed to tilting. As the foam plastic used for the production of the stuffing is in itself very light and as the weight per unit of area of

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the slabs produced is decreased by the large holes formed in it, a very light stuffing is obtained, excellently suited for chairs, settees and other furniture.

5 Figure 2 shows such an upholstery or stuffing consisting of six layers 5 of the stuffing material placed one on top of the other.

10 It is especially pointed out that the perforated slabs produced according to the invention may be used for the packing of fragile goods. For this and other purposes the material may be coated with paper, fabric or with uncut slabs of the same or other plastic material, particularly in the form of foam material.

WHAT I CLAIM IS:—

20 1. A stuffing material, characterised in that it consists of a slab of foam plastic, particularly nylon, having slits cut therein, so that when distended across the slits, the material has holes formed therein.

2. A stuffing produced from material as claimed in Claim 1, characterised in that the

stuffing consists of several layers of the said 25 slabs distended across the slits and placed on top of each other and alternately crossing.

3. A method for the production of stuffing material as claimed in Claim 1, characterised 30 in that rows of slits offset in relation to each other are cut in a slab of foam plastic.

4. A method for the production of a stuffing as claimed in Claim 2, characterised in that 35 rows of slits offset in relation to each other are cut in slabs of the foam plastic and the slabs are distended across the slits to form rows of holes offset in relation to each other, and the distended slabs are superimposed in crossed relationship.

5. Stuffing constructed and arranged substantially as described herein with reference 40 to the accompanying drawings.

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1 SHEET

COMPLETE SPECIFICATION

This drawing is a reproduction of
the Original on a reduced scale.

Fig. 1

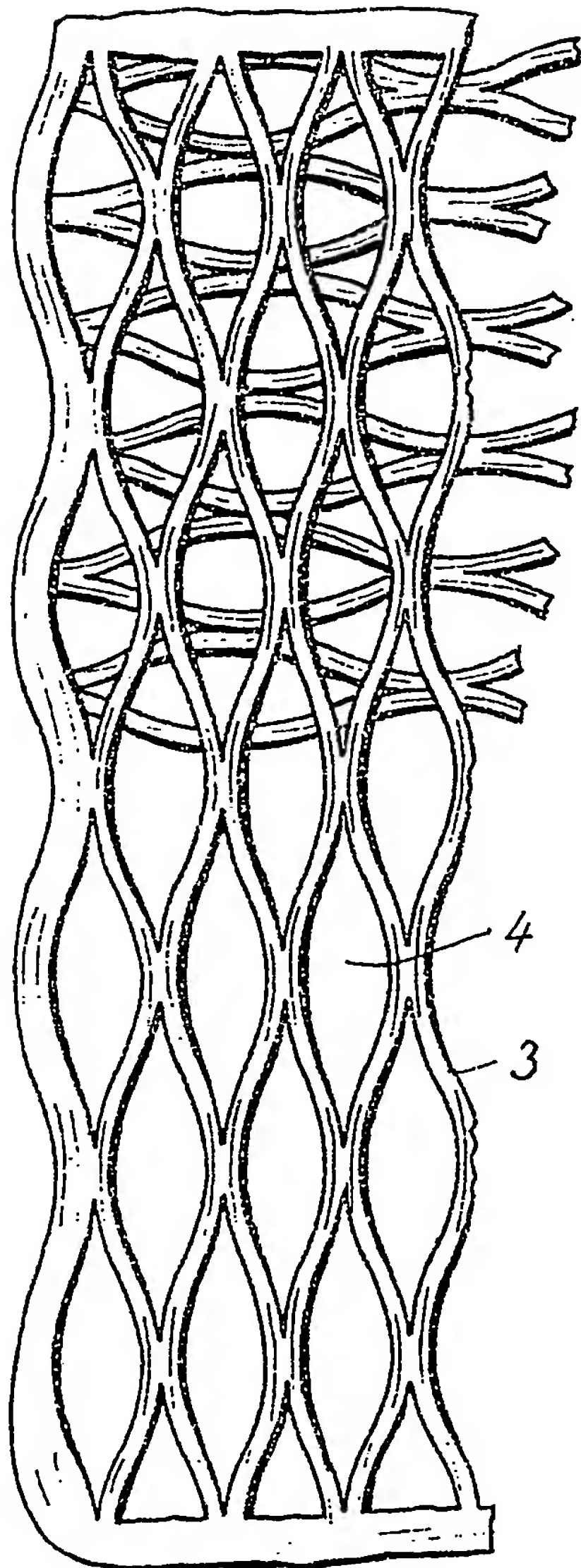


Fig. 2

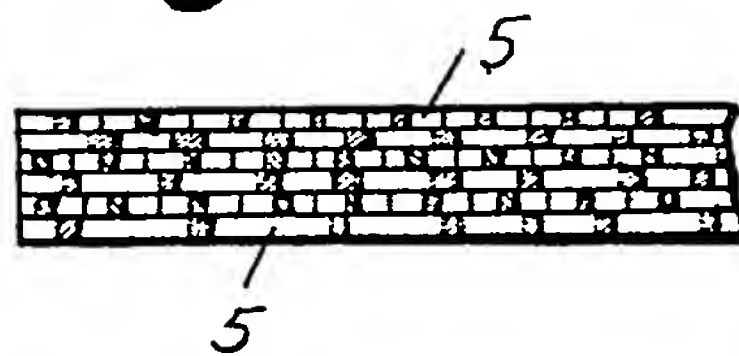


Fig. 3

